



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 99 30 2294

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X A	EP 0 476 679 A (CANON KK) 25 March 1992 (1992-03-25) * column 13, line 5 - column 32, line 14; figures 8A,9,12B-16,20 * ---	1-5,7, 14,15 6,12	B41J2/165 B41J2/19
X	US 4 668 965 A (KIMURA YOSHIAKI ET AL) 26 May 1987 (1987-05-26) * column 5, line 24 - column 6, line 49 * ---	1,4,6, 12,14,15	
X	EP 0 541 519 A (SEIKO EPSON CORP) 12 May 1993 (1993-05-12) * column 6, line 30 - column 13, line 55; figures 1,3,8 * ---	1-5	
X A	US 4 727 378 A (LE HUE P ET AL) 23 February 1988 (1988-02-23) * column 5, line 10 - column 11, line 44 * ---	1,12 6	
X	US 4 199 769 A (FISCHBECK KENNETH H) 22 April 1980 (1980-04-22) * column 3, line 4 - column 7, line 64 * ---	1,12	
A	EP 0 631 873 A (CITIZEN WATCH CO LTD) 4 January 1995 (1995-01-04) * column 10, line 30 - column 18, line 55; figures 11,21 * ---	1,2,6	TECHNICAL FIELDS SEARCHED (Int.Cl.6) B41J
A	US 5 570 116 A (SOGA MITSUhide) 29 October 1996 (1996-10-29) * column 3, line 6 - line 43; figures 1,2 * ---	8	
X	PATENT ABSTRACTS OF JAPAN vol. 014, no. 147 (M-0952), 20 March 1990 (1990-03-20) & JP 02 011332 A (CANON INC), 16 January 1990 (1990-01-16) * abstract * --- -/--	16,17, 19, 23-26,30	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 22 February 2000	Examiner De Groot, R
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03/82 (P04C01)



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X A	US 5 081 472 A (FISHER ALMON P) 14 January 1992 (1992-01-14) * column 4, line 41 - column 5, line 57; figures 1,2,4,6 *	16,17, 23,24,30 20	
X A	EP 0 709 204 A (HEWLETT PACKARD CO) 1 May 1996 (1996-05-01) * column 7, line 25 - line 55; figure 4 * * page 5, line 30 - page 7, line 24; figure 3 *	16,17, 23,24, 30,32,33 20,34	
A	US 5 432 539 A (ANDERSON DAVID G) 11 July 1995 (1995-07-11) * column 7, line 51 - column 8, line 23; figure 4 *	16	
A	US 5 489 928 A (TAKAHASHI HIROTO ET AL) 6 February 1996 (1996-02-06) * column 11, line 52 - column 12, line 21; figure 13 *	16	
A	US 5 663 751 A (HOLBROOK RUSSELL W) 2 September 1997 (1997-09-02) * column 4, line 52 - column 5, line 22; figure 6 *	16	
A	US 5 559 540 A (BUROLLO VINCENT A) 24 September 1996 (1996-09-24) * column 2, line 49 - column 3, line 58; figure 5 *	16	
A	PATENT ABSTRACTS OF JAPAN vol. 014, no. 256 (M-0980), 4 June 1990 (1990-06-04) & JP 02 072961 A (FUJI XEROX CO LTD), 13 March 1990 (1990-03-13) * abstract *	16	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
Place of search THE HAGUE		Date of completion of the search 22 February 2000	Examiner De Groot, R
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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LACK OF UNITY OF INVENTION
SHEET B

Application Number
EP 99 30 2294

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 16-34

printhead wiping means

2. Claims: 1-15

- declogging of the printhead by means of pressurization
- declogging of the printhead by means of suction

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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22-02-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0476679 A	25-03-1992	JP 2698698 B	19-01-1998
		JP 4131250 A	01-05-1992
		JP 2810522 B	15-10-1998
		JP 4131251 A	01-05-1992
		JP 2637614 B	06-08-1997
		JP 4128051 A	28-04-1992
		AT 140426 T	15-08-1996
		CN 1060431 A	22-04-1992
		DE 69120885 D	22-08-1996
		DE 69120885 T	19-12-1996
		US 5386222 A	31-01-1995
US 4668965 A	26-05-1987	JP 1631638 C	26-12-1991
		JP 2062393 B	25-12-1990
		JP 58101066 A	16-06-1983
		DE 3244809 A	21-07-1983
EP 0541519 A	12-05-1993	JP 2072962 A	13-03-1990
		JP 2737166 B	08-04-1998
		JP 2122933 A	10-05-1990
		JP 2737174 B	08-04-1998
		JP 2175158 A	06-07-1990
		DE 68919775 D	19-01-1995
		DE 68919775 T	13-07-1995
		DE 68927712 D	06-03-1997
		DE 68927712 T	19-06-1997
		EP 0358487 A	14-03-1990
		HK 117795 A	28-07-1995
		HK 1000463 A	27-03-1998
		SG 47854 A	17-04-1998
		US 5055856 A	08-10-1991
		US 5252993 A	12-10-1993
US 4727378 A	23-02-1988	DE 3782101 A	12-11-1992
		EP 0252677 A	13-01-1988
		JP 63025048 A	02-02-1988
US 4199769 A	22-04-1980	DE 2944972 A	19-06-1980
		GB 2035909 A, B	25-06-1980
		JP 55079176 A	14-06-1980
EP 0631873 A	04-01-1995	JP 2879608 B	05-04-1999
		US 5619232 A	08-04-1997
		WO 9413488 A	23-06-1994
US 5570116 A	29-10-1996	JP 6270419 A	27-09-1994

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 99 30 2294

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

22-02-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 02011332 A	16-01-1990	NONE	
US 5081472 A	14-01-1992	JP 4348952 A	03-12-1992
EP 0709204 A	01-05-1996	US 5706038 A	06-01-1998
		CN 1133237 A	16-10-1996
		DE 69510004 D	08-07-1999
		DE 69510004 T	23-09-1999
		JP 8207296 A	13-08-1996
		US 6017110 A	25-01-2000
US 5432539 A	11-07-1995	JP 6340081 A	13-12-1994
US 5489928 A	06-02-1996	JP 2710944 B	10-02-1998
		JP 64001551 A	05-01-1989
		JP 1234253 A	19-09-1989
		JP 2710945 B	10-02-1998
		DE 3810920 A	03-11-1988
		GB 2203994 A,B	02-11-1989
		US 5005024 A	02-04-1991
US 5663751 A	02-09-1997	NONE	
US 5559540 A	24-09-1996	JP 8039796 A	13-02-1996
JP 02072961 A	13-03-1990	JP 2687477 B	08-12-1997